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PRA

PERIPHERAL ELECTRIC PUMPS

in cast iron



Cast iron peripheral electric pumps

APPLICATIONS

- Suitable for domestic uses
- Boilers power supply and booster units
- Autoclave group

TECHNICAL DETAILS

- They're silent
- Practical
- Easy to transport
- Available also in the nickel-plated version (PRN 0.50 model)

PUMP TECHNICAL DATA

- Maximum working pressure:
 - 6 bar for PRA 0.50
 - 7.5 bar for PRA 0.80
 - 12 bar for the rest of the range
- Maximum temperature of the liquid: 80°C
- G1 discharge connection
- G1 suction connection

MOTOR TECHNICAL DATA

- High efficiency IE2 motors starting from 0,75kW
- Asynchronous motor, 2 poles
- Class of insulation F
- IP44 Protection degree
- 230V±10%, 50Hz single phase voltage, 230/400V±10%, 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

MATERIALS

- Cast iron pump casing and bracket
- Shaft in AVZ Steel for the PRA 0.50 model, in AISI 303 for the rest of the range
- Brass impeller
- Mechanical seal in Carbon/Ceramic/NBR

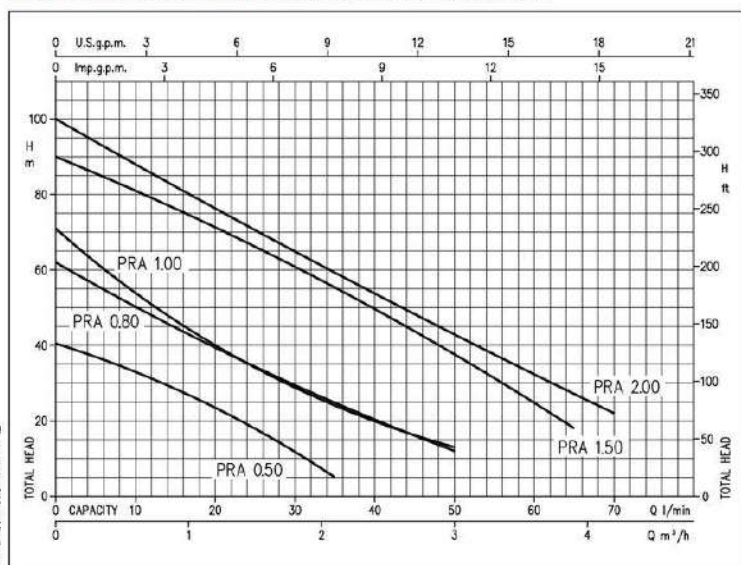
CONTROL PANELS

- 1EP
- 1EPBH

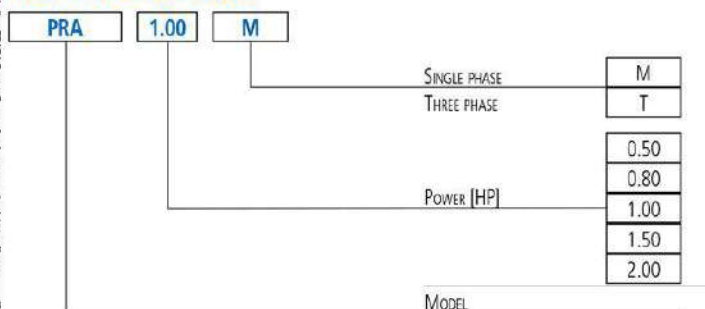
ACCESSORIES (on request)

- 5 litre 10 bar ¾ EPDM vessel
- 24 litre 8 bar 1" EPDM vessel
- 24 litre 10 bar 1" EPDM vessel
- 24 litre 16 bar 1" EPDM vessel
- PVC 5m key float with counter-weight
- PVC 10m key float with counter-weight
- SQUARE-D FSG-2 1.4÷4.6 bar G¼ F pressure switch
- FYG-22 2.8÷7 bar G¼ F pressure switch
- FYG-32 5.6÷10.5 bar G¼ F pressure switch
- Presscomfort - Pressure regulator
- Press•o•Matic - Variable speed control system (230V±10% single phase - power supply three phase 220V output - maximum motor power 2.2 kW - 3 HP)

PERFORMANCE CURVES (according to ISO 9906 Attachment A)



IDENTIFICATION CODE





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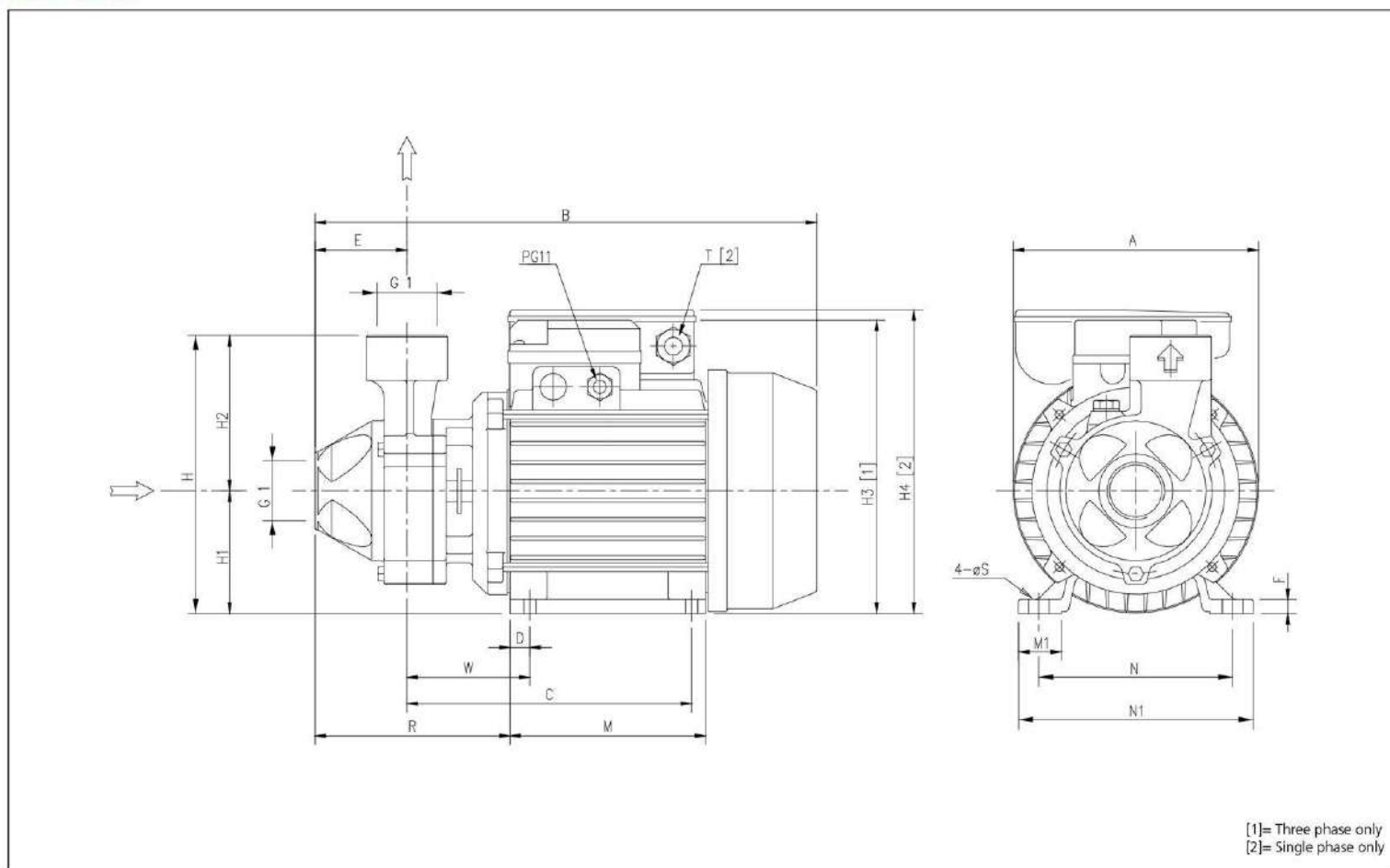
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PERFORMANCE TABLE

Model		P ₂		Q=Flow rate								
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min m ³ /h	5	10	15	20	35	50	65	70
				H=Head [m]								
				0,3	0,6	0,9	1,2	2,1	3	3,9	4,2	
PRA 0.50 M	PRA 0.50 T	0,5	0,37	37,0	33,3	28,7	23,7	5,0	-	-	-	-
PRA 0.80 M	PRA 0.80 T	0,8	0,6	56,0	50,7	45,1	39,8	25,0	12,0	-	-	-
PRA 1.00 M	PRA 1.00 T	1	0,75	62,0	54,4	47,0	40,4	24,3	13,0	-	-	-
PRA 1.50 M	PRA 1.50 T	1,5	1,1	-	81,0	76,9	71,9	55,8	37,9	18,0	-	-
PRA 2.00 M	PRA 2.00 T	2	1,5	-	88,0	82,9	77,0	59,8	43,3	27,4	22,0	-

DIMENSIONS



DIMENSIONS TABLE

Model	Dimensions [mm]																			Weight [kg]
	A	B	C	D	E	F	H	H1	H2	H3 [1]	H4 [2]	M	M1	N	N1	R	T [2]	W	S	
PRA 0.50M	130	263,5	148,5	10	50	7	143	63	80	-	160	100	23	100	120	118,5	PG11	68,5	7	5,6
PRA 0.50T	130	263,5	148,5	10	50	7	143	63	80	149,5	-	100	23	100	120	118,5	-	68,5	7	5,6
PRA 0.80M	130	290,5	159,3	11	53,8	9	161	71	90	-	178	112	25	112	135	122	PG11	69,3	7	9,2
PRA 0.80T	150	290,5	159,3	11	53,8	9	161	71	90	167,5	-	112	25	112	135	122	-	69,3	7	9,2
PRA 1.00M	150	290,5	159,3	11	53,8	9	161	71	90	-	178	112	25	112	135	122	PG11	69,3	7	9,7
PRA 1.00T	150	290,5	159,3	11	53,8	9	161	71	90	167,5	-	112	25	112	135	122	-	69,3	7	10,5
PRA 1.50M	162	330,5	188	12	57	12	175	80	95	-	212	124	28	125	152	144	PG13,5	88	9	14,5
PRA 1.50T	162	330,5	188	12	57	12	175	80	95	186,5	-	124	28	125	152	144	-	88	9	15,5
PRA 2.00M	162	330,5	188	12	57	12	175	80	95	-	212	124	28	125	152	144	PG13,5	88	9	15,8
PRA 2.00T	162	344	188	12	57	12	175	80	95	186,5	-	124	28	125	152	144	-	88	9	16,4

[1]= Three phase only
[2]= Single phase only

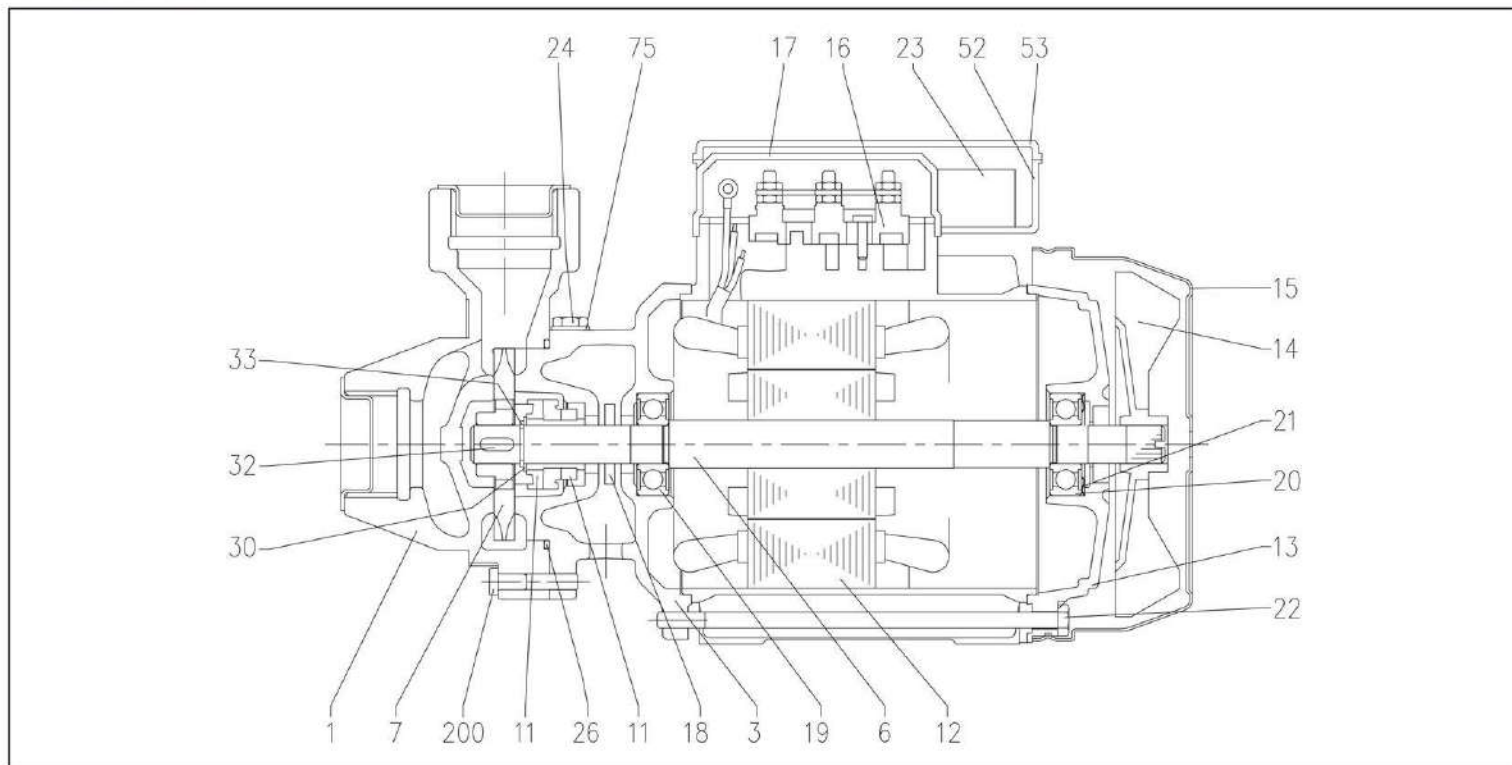
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SECTIONAL VIEW



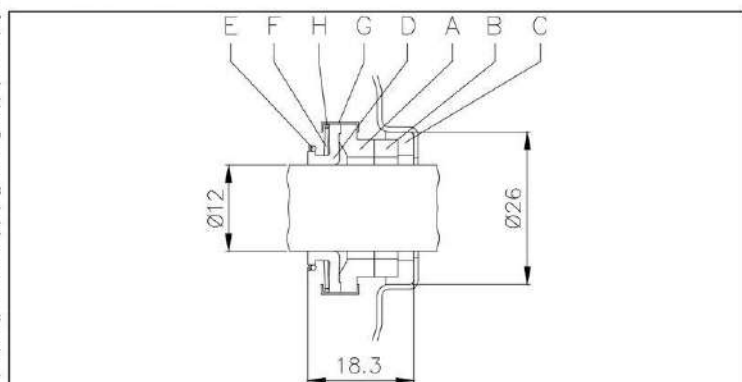
MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	Cast iron	20	Bearing (motor side)	-
3	Motor support	Cast iron	21	Adjusting ring	Steel C70
6	Shaft with rotor	[3]	22	Tie-rod	Galvanised Fe 42
7	Impeller	Brass	23	Capacitor [2]	-
11	Mechanical seal	Carbon/Ceramic/NBR	24	Filler cap	Brass
12	Motor casing with stator	-	26	O-Ring	NBR
13	Motor cover	Aluminium	30	Washer	AISI 304
14	Fan	PP	32	Key	AISI 316
15	Fan cover	Galvanised Fe P04	33	Ring	AISI 304
16	Terminal box	-	52	Capacitor-holder box [2]	ABS
17	Terminal box cover [1]	Aluminium	53	Capacitor-holder box cover [2]	ABS
18	Spray protector ring	NBR	75	Washer	Aluminium
19	Bearing (pump side)	-	200	Screw	Zn stainless steel Cl. 8.8

[1]= For three phase only [2]= For single phase only

[3]= Material: C10 for PRA 0.50, AISI 420 for PRA 0.80 and PRA 1.00, AISI 303 (part in contact with the liquid) for the rest of the range

MECHANICAL SEAL for PRA 0.50 - 0.80 - 1.00



MATERIALS TABLE for PRA 0.50 - 0.80 - 1.00

Ref.	Name	Material
A	Rotating part	Carbon
B	Fixed part	Ceramic
C	Gasket	NBR
D	Diaphragm	NBR
E	Ring	AISI 304
F	Spring	AISI 304
G	Structure/frame	AISI 304
H	Retainer ring	AISI 304

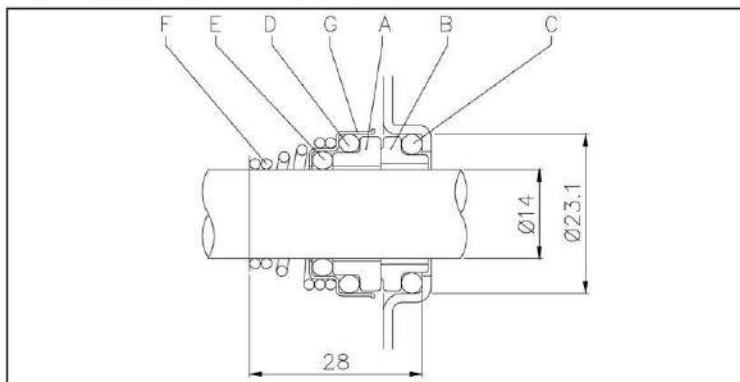


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MECHANICAL SEAL for PRA 1.50 - 2.00



MATERIALS TABLE for PRA 1.50 - 2.00

Ref.	Name	Material
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316
G	Structure/frame	AISI 304

ELECTRIC DATA TABLE

Model Single phase 230V	Model Three phase 230/400V	P ₂		Efficiency		Capacitor Single phase μF	V _c	Efficiency (%) Three phase			P ₁		Absorbed Current [A]		
		[HP]	[kW]	Single phase	Three phase			50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	400V
PRA 0.50 M	PRA 0.50 T	0,5	0,37	-	-	10	450	-	-	-	0,57	0,55	2,6	1,7	1,0
PRA 0.80 M	PRA 0.80 T	0,8	0,6	-	-	16	450	-	-	-	1,10	1,10	4,9	3,6	2,1
PRA 1.00 M	PRA 1.00 T	1	0,75	-	IE2	20	450	77,2	80,9	81,3	1,25	0,92	5,6	3,0	1,7
PRA 1.50 M	PRA 1.50 T	1,5	1,1	-	IE2	40	450	79,7	82,5	83,0	2,27	1,80	10,0	5,6	3,2
PRA 2.00 M	PRA 2.00 T	2	1,5	-	IE2	40	450	78,6	83,0	84,2	2,45	2,25	10,9	7,4	4,3

NOISE DATA TABLE

Model Single phase 230V	Model Three phase 230/400V	P ₂		L _{pa} - dB(A)*
		[HP]	[kW]	
PRA 0.50 M	PRA 0.50 T	0,5	0,37	<70
PRA 0.80 M	PRA 0.80 T	0,8	0,6	
PRA 1.00 M	PRA 1.00 T	1	0,75	
PRA 1.50 M	PRA 1.50 T	1,5	1,1	73
PRA 2.00 M	PRA 2.00 T	2	1,5	

* Mean value of several measures at 1m distance around the pump.
Tolerance ± 2,5 dB.

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